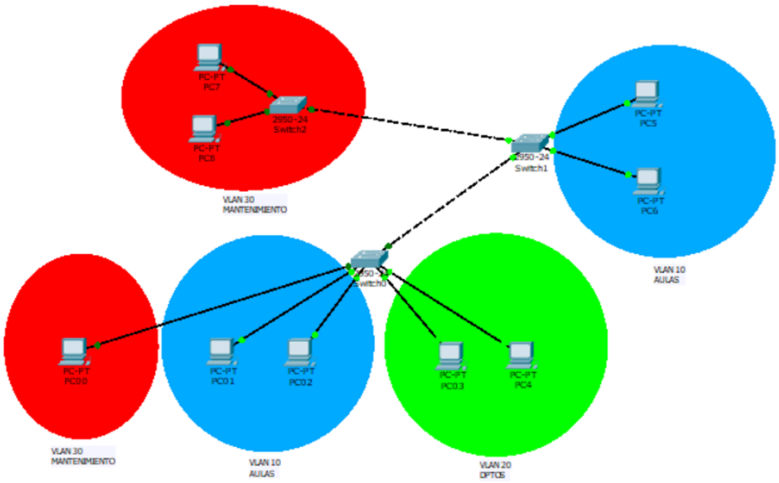
# Práctica 5.7 Ejercicios en Packer Tracer

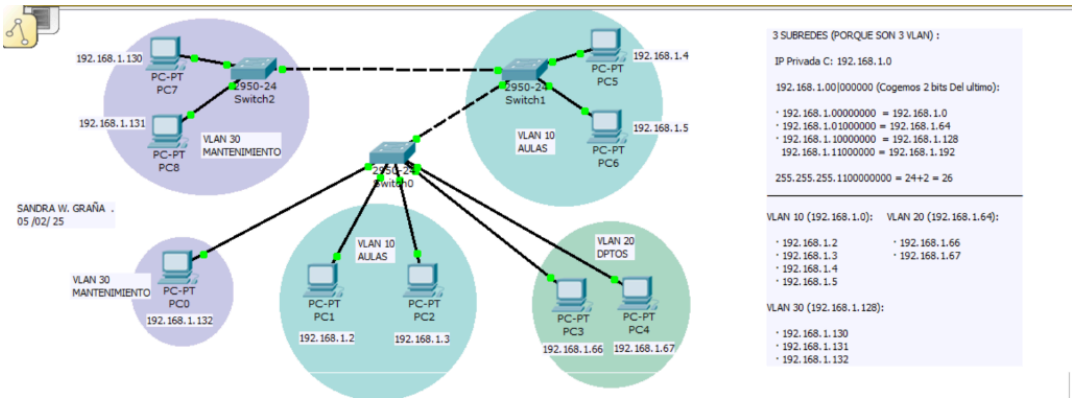
lunes, 30 de enero de 2023 15:50

1. Se busca obtener y configurar el siguiente esquema lógico en *Packet Tracer* formado por tres subredes **VLAN**:




a. Asigna **direcciones IP** para todos los equipos de la red.

**Esta mal : Tienen diferente IP pero tienen que ser con la misma IP todos ._.**

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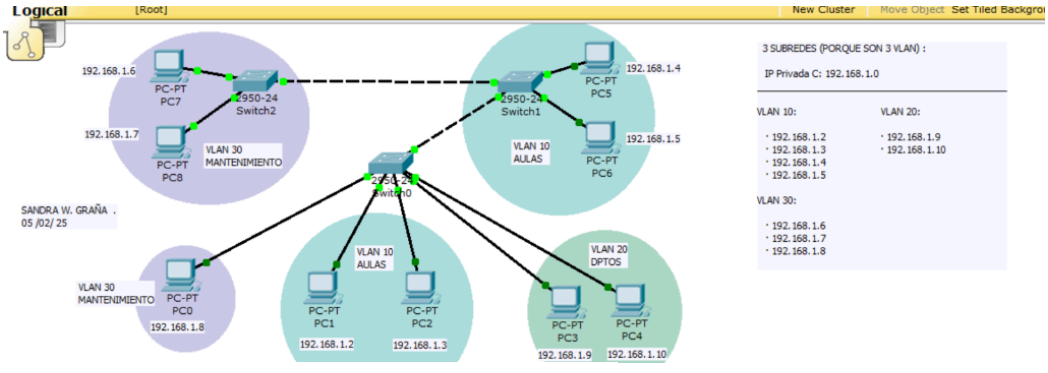
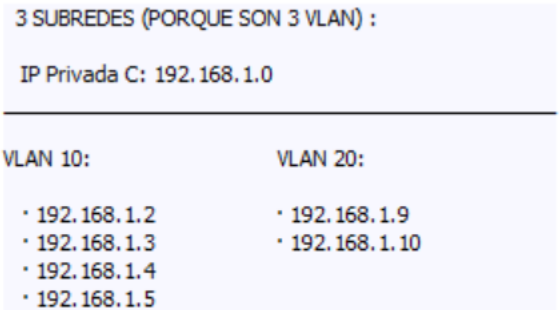
**Está bien: Tiene que ser con la misma IP ._.**



VLAN 30:

- 192.168.1.6
- 192.168.1.7
- 192.168.1.8

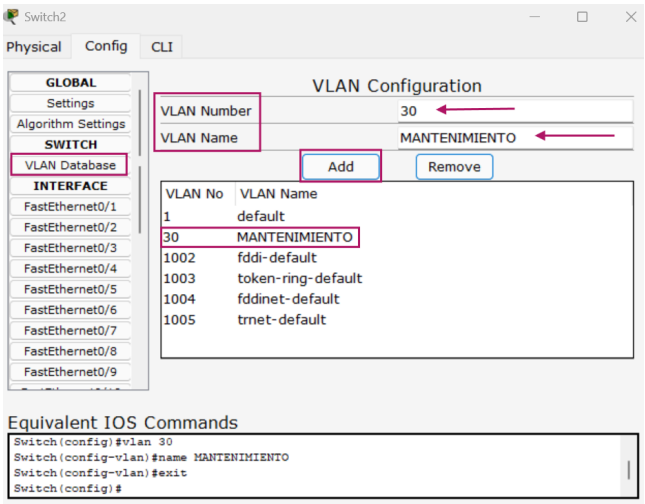
b. Deberás de crear en cada uno de los switches tres **VLAN** llamadas: *VLAN10*, *VLAN20* y *VLAN30* en el apartado *VLAN Database* de cada switch. No te olvides de dibujarlas también como en el esquema: VLAN10 es AULAS, VLAN 20 es DPTOS y VLAN 30 es MANTENIMIENTO.

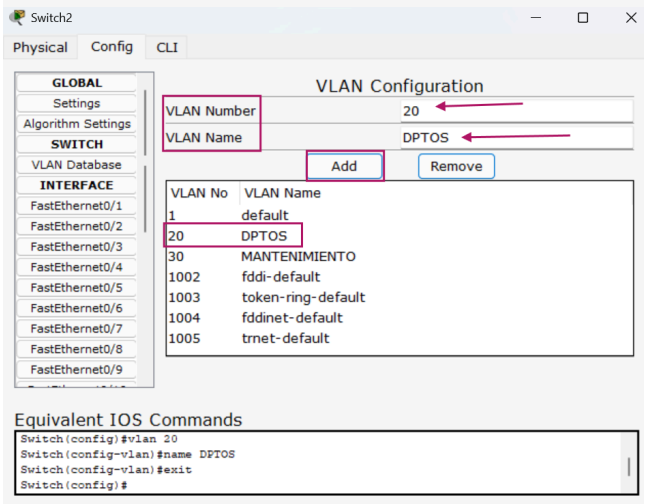
Entra al Switch y ve al apartado de Config. > VLAN Database.

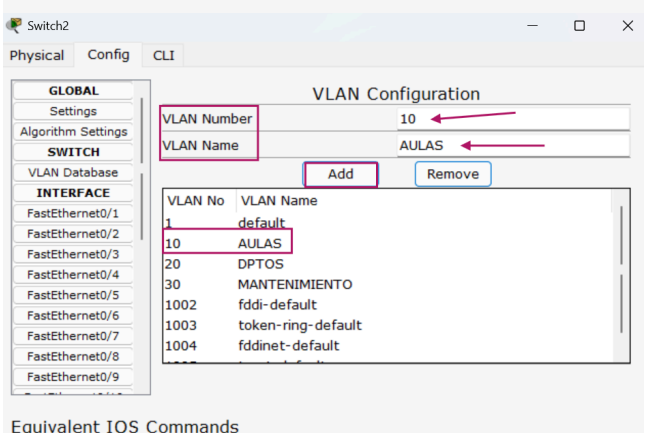
Cuando estas en la base de datos de VLAN añade los apartados:

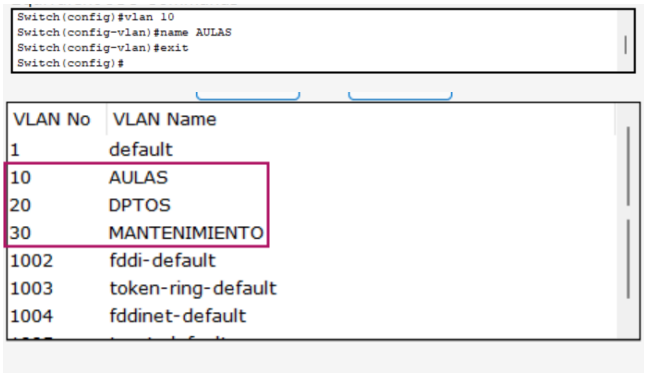
- 30 MANTENIMIENTO
- 20 DPTOS
- 10 AULAS

Hazlo en los 3 Switch y de los 3 VLAN



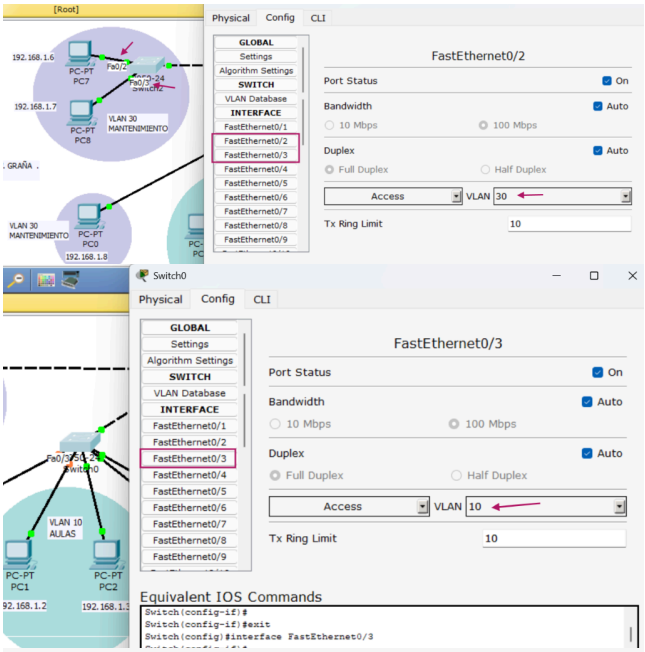



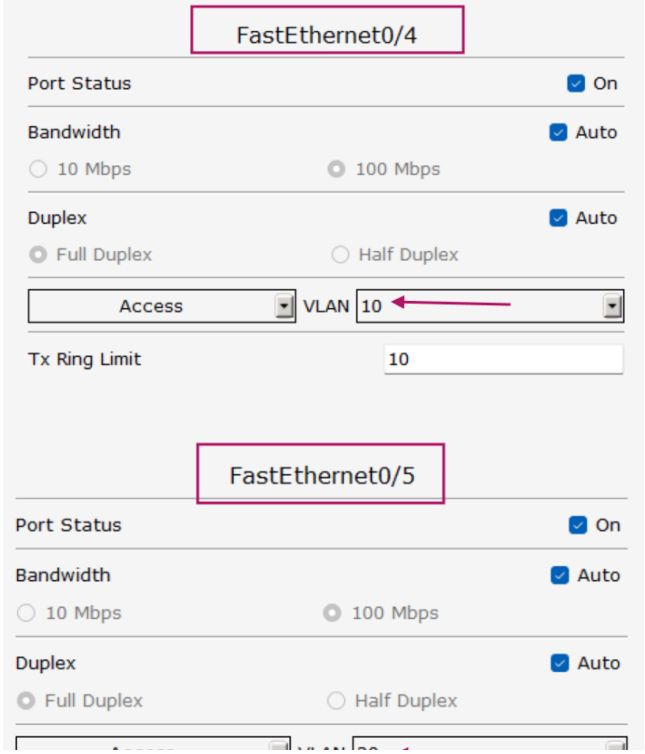


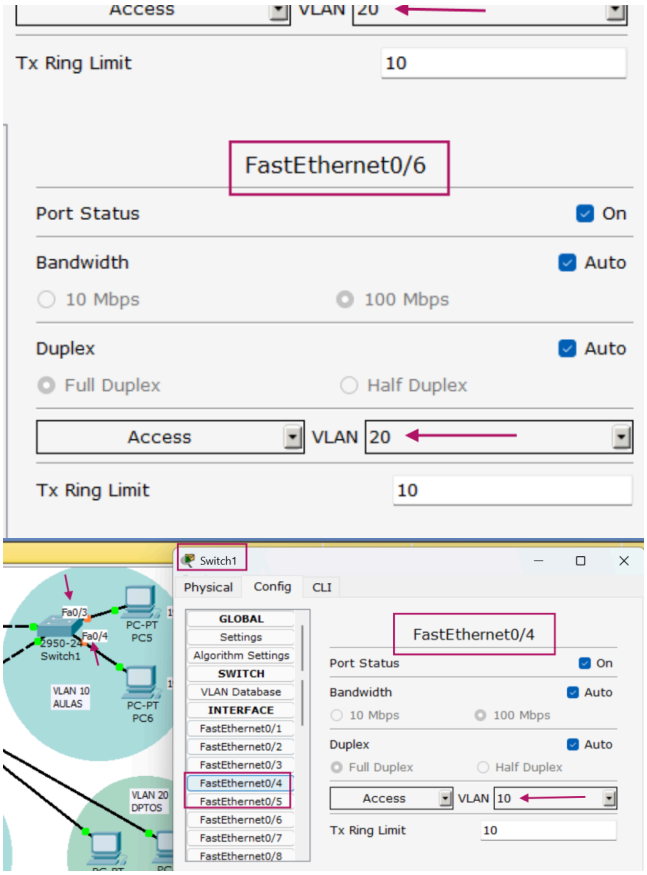

c. Asigna a la *VLAN10* los **puertos** del esquema que la utilicen con sus respectivos equipos en el apartado Interface del switch. Haz lo mismo para las *VLAN20* y *VLAN30* siguiendo el esquema superior.

Entra al Switch > Config > Interface > FastEthernet (Tienes que ver cada).

- Pasando el cursor por encima del puntito de cada cable puedes ver que FastEthernet pertenece a cada pc. (Los Puertos)
- Y en el switch eliges ese puerto y pones el VLAN que le corresponde.



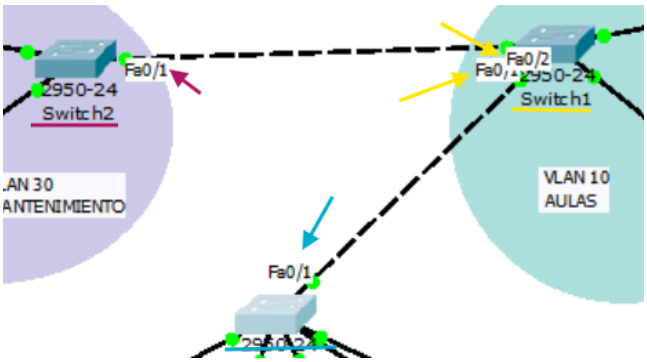



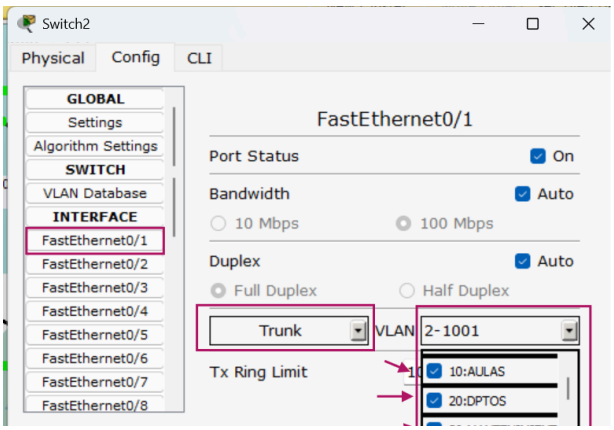


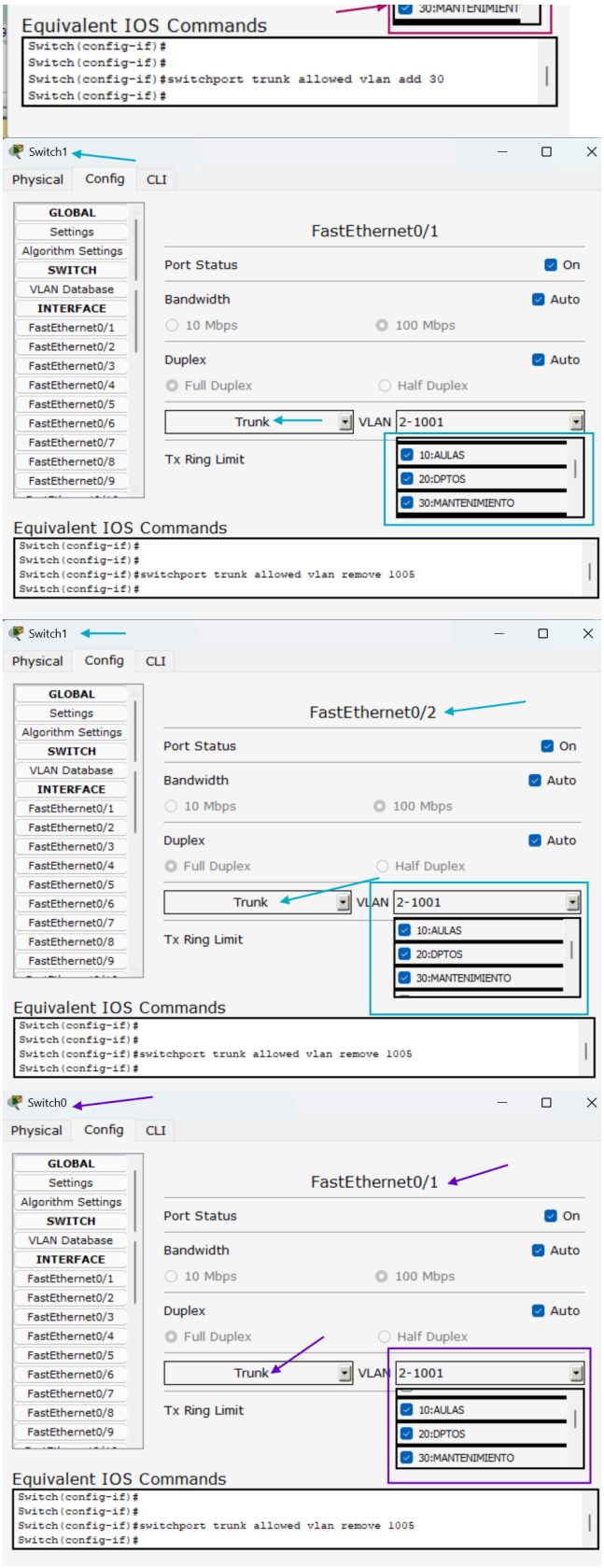

Con esto conectas cada Equipo a su propio VLAN

d. Entre los switches deberás de crear una conexión de tipo troncal (*Trunk*) entre los **puertos** en que estén conectados.

- Compruebas los puertos que conectan cada Switch
- Entra a Switch > Config > Puerto
- Cuando estas el el FastEthernet vas al apartado de VLAN y donde pone Access lo cambias a Troncal.
- Eliges los 3 VLAN (10,20,30)
- Lo haces en todos los Switch

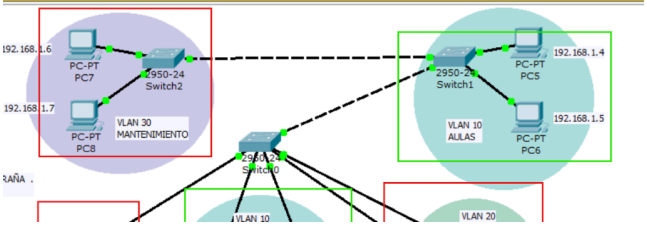


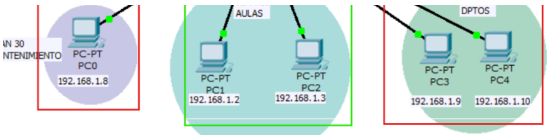






e. Verifica que la red funcione y haz las pruebas pertinentes para que los equipos solo puedan enviarse datos si pertenecen a la misma VLAN (haz pruebas con cada una de las 3 VLAN)

**VLAN 10 (Solo los verdes se deben de poder conectar y mandar mensajes)**

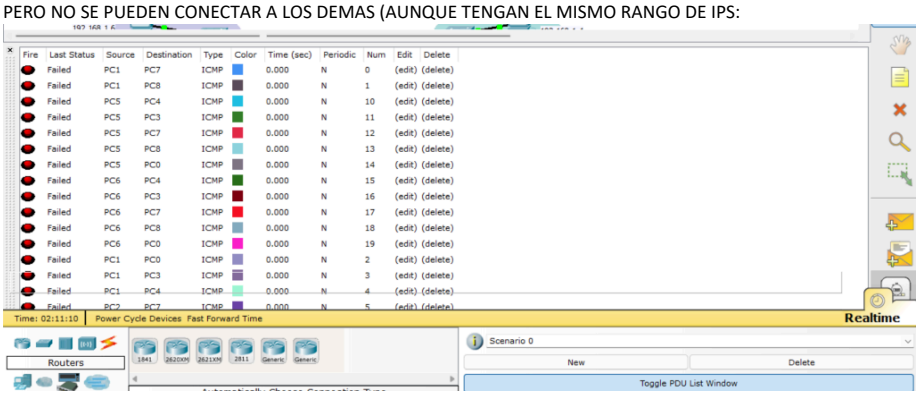





PC1 – PC2 – PC5 – PC6 SE DEBEN DE PODER CONECTAR ENTRE SI:

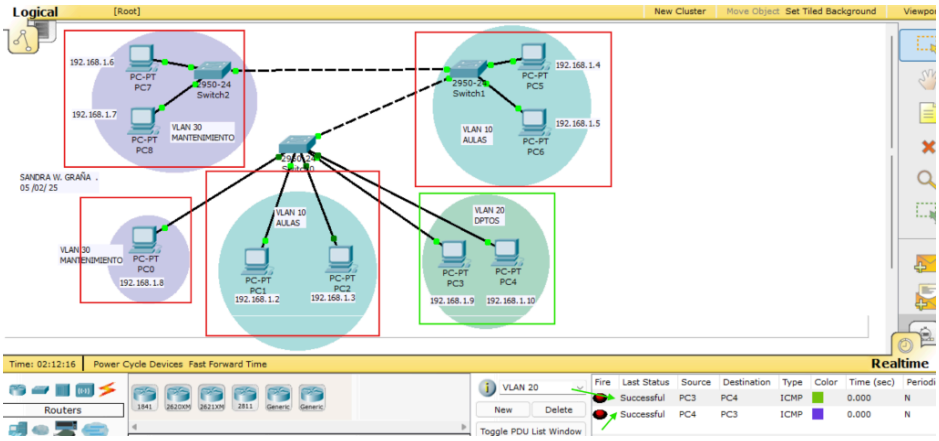
| Fire | Last Status | Source | Destination | Type | Color | Time (sec) | Periodic | Num | Edit | Delete |
|---|---|---|---|---|---|---|---|---|---|---|
| | Successful | PC5 | PC6 | ICMP | | 0.000 | N | 0 | (edit) | (delete) |
| | Successful | PC6 | PC5 | ICMP | | 0.000 | N | 1 | (edit) | (delete) |
| | Successful | PC2 | PC1 | ICMP | | 0.000 | N | 2 | (edit) | (delete) |
| | Successful | PC1 | PC2 | ICMP | | 0.000 | N | 3 | (edit) | (delete) |
| | Successful | PC1 | PC5 | ICMP | | 0.000 | N | 4 | (edit) | (delete) |
| | Successful | PC2 | PC5 | ICMP | | 0.000 | N | 5 | (edit) | (delete) |
| | Successful | PC6 | PC2 | ICMP | | 0.000 | N | 6 | (edit) | (delete) |
| | Successful | PC6 | PC1 | ICMP | | 0.000 | N | 7 | (edit) | (delete) |

PERO NO SE PUEDEN CONECTAR A LOS DEMAS (AUNQUE TENGAN EL MISMO RANGO DE IPS:




**VLAN 20 (Solo los verdes se deben de poder conectar y mandar mensajes)**

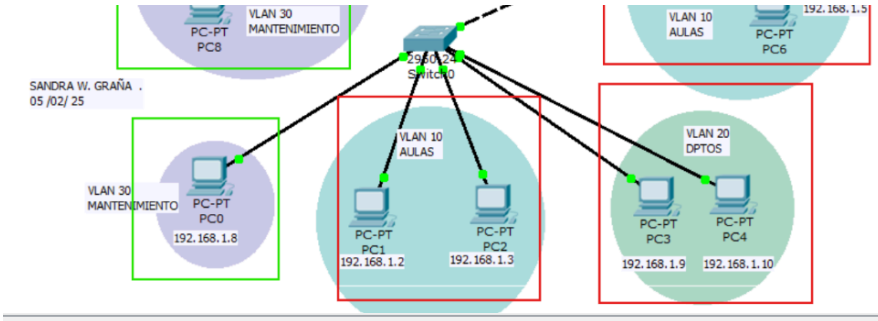
Successful:




Failed:

| Fire | Last Status | Source | Destination | Type | Color | Time (sec) | Periodic | Num | Edit | Delete |
|---|---|---|---|---|---|---|---|---|---|---|
| | Failed | PC4 | PC6 | ICMP | | 0.000 | N | 0 | (edit) | (delete) |
| | Failed | PC3 | PC5 | ICMP | | 0.000 | N | 1 | (edit) | (delete) |
| | Failed | PC4 | PC2 | ICMP | | 0.000 | N | 2 | (edit) | (delete) |
| | Failed | PC3 | PC1 | ICMP | | 0.000 | N | 3 | (edit) | (delete) |
| | Failed | PC4 | PC0 | ICMP | | 0.000 | N | 4 | (edit) | (delete) |
| | Failed | PC3 | PC0 | ICMP | | 0.000 | N | 5 | (edit) | (delete) |
| | Failed | PC3 | PC7 | ICMP | | 0.000 | N | 6 | (edit) | (delete) |
| | Failed | PC3 | PC8 | ICMP | | 0.000 | N | 7 | (edit) | (delete) |
| | Failed | PC4 | PC8 | ICMP | | 0.000 | N | 8 | (edit) | (delete) |
| | Failed | PC4 | PC7 | ICMP | | 0.000 | N | 9 | (edit) | (delete) |

**VLAN 30 (Solo los verdes se deben de poder conectar y mandar mensajes)**



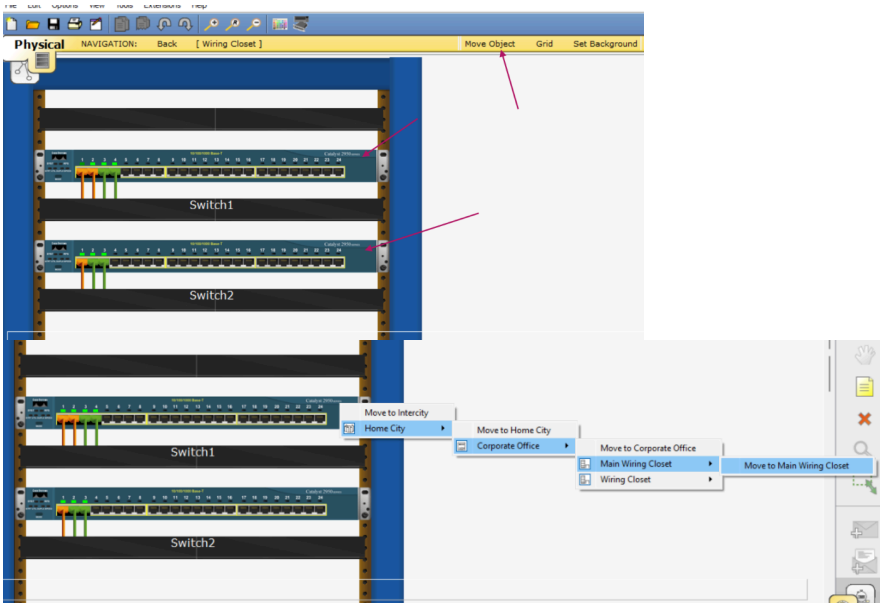

| Fire | Last Status | Source | Destination | Type | Color | Time (sec) | Periodic | Num | Edit | Delete |
|---|---|---|---|---|---|---|---|---|---|---|
| | Successful | PC7 | PC8 | ICMP | | 0.000 | N | 0 | (edit) | (delete) |
| | Successful | PC8 | PC7 | ICMP | | 0.000 | N | 1 | (edit) | (delete) |
| | Successful | PC8 | PC0 | ICMP | | 0.000 | N | 2 | (edit) | (delete) |
| | Successful | PC0 | PC8 | ICMP | | 0.000 | N | 3 | (edit) | (delete) |
| | Successful | PC7 | PC0 | ICMP | | 0.000 | N | 4 | (edit) | (delete) |
| | Successful | PC0 | PC7 | ICMP | | 0.000 | N | 5 | (edit) | (delete) |

| Fire | Last Status | Source | Destination | Type | Color | Time (sec) | Periodic | Num | Edit | Delete |
|---|---|---|---|---|---|---|---|---|---|---|
| | Failed | PC0 | PC1 | ICMP | | 0.000 | N | 0 | (edit) | (delete) |
| | Failed | PC0 | PC4 | ICMP | | 0.000 | N | 1 | (edit) | (delete) |
| | Failed | PC7 | PC5 | ICMP | | 0.000 | N | 10 | (edit) | (delete) |
| | Failed | PC7 | PC6 | ICMP | | 0.000 | N | 11 | (edit) | (delete) |
| | Failed | PC0 | PC5 | ICMP | | 0.000 | N | 2 | (edit) | (delete) |
| | Failed | PC8 | PC2 | ICMP | | 0.000 | N | 3 | (edit) | (delete) |
| | Failed | PC8 | PC3 | ICMP | | 0.000 | N | 4 | (edit) | (delete) |
| | Failed | PC8 | PC6 | ICMP | | 0.000 | N | 5 | (edit) | (delete) |
| | Failed | PC7 | PC1 | ICMP | | 0.000 | N | 6 | (edit) | (delete) |
| | Failed | PC7 | PC2 | ICMP | | 0.000 | N | 7 | (edit) | (delete) |
| | Failed | PC7 | PC3 | ICMP | | 0.000 | N | 8 | (edit) | (delete) |
| | Failed | PC7 | PC4 | ICMP | | 0.000 | N | 9 | (edit) | (delete) |

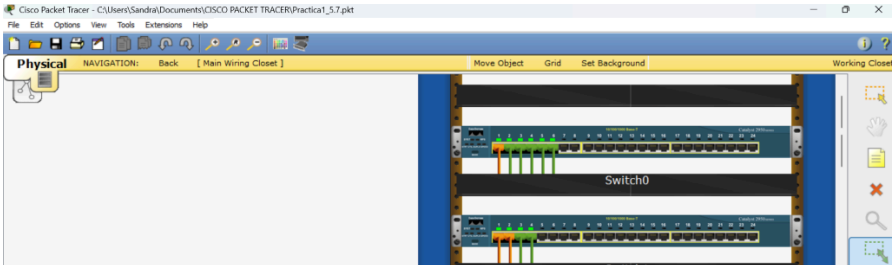
f. Haz una captura del modo físico en el que se vea el rack con los 3 switches apilados. En caso de que no sea así, agrúpalos en un mismo rack.

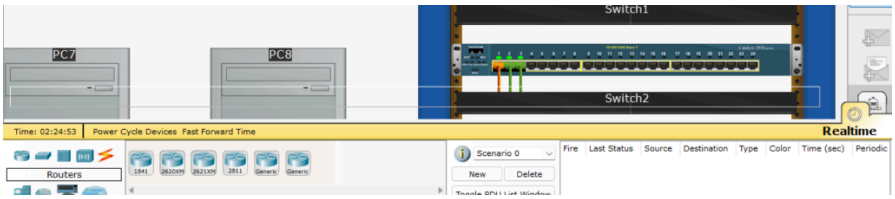
Si tienes que moverlos:

Elige Move Object > Selcciona el Switch > Selecciona el Main Wiring...




Ya los tendras en el mismo Rack:






Mas de cerca:


g. Dado el esquema del rack anterior completa la siguiente tabla con los puertos de los switches y las **VLANs** que hayas asignado:

Si pasas el ratón por encima de cada Puerto puedes ver los detalles. Y si haces clic al Switch puedes ver su config.

**Switch0**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | .. | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trunk 10,20,30 | 30 | 10 | 10 | 20 | 20 | | | | | | | |

**Switch1**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | .. | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trunk 10,20,30 | Trunk 10,20,30 | 10 | 10 | | | | | | | | | |

**Switch2**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | .. | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trunk 10,20,30 | 30 | 30 | | | | | | | | | | |